

NOTES ON THE BIRDS OF THE SIKKIM HIMALAYAS,

By

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PART V.

(With a plate.)

(Continued from page 71 of this Volume.)

239. Buturlin's Red-spotted Blue-Throat. *Cyanosylvia suecica robusta* (But.). ?

Obtained on one occasion only ♂ 13-2-19, at 3,500', and observed ♀ 2-12-21* on both occasions in the bottom of the Rungbong Valley at Gopaldhara. The great majority of these Blue-Throats must clear the outer hills on their descent to the plains, and it is only stragglers, finding a congenial haunt, that remain. I noted it on a few occasions in grass-land near the Sankos River in the plains in January 1922. On comparing this single ♂ with my Assam skins I find six specimens to measure as follows: Sikkim, ♂ wing 70; Assam, 3 ♂ ♂, 73·5-75 av. 74·3; 2 ♀ ♀, 69·5-72·5, av. 71.

Dr. Hartert's measurement for *Luscinia s. pallidogularis*, 71-75.

Type locality Orenburg and probably the Turan.

	<i>L.</i>	<i>s. discissa</i> 69-74
„ „	Transcaspia.	
	<i>L.</i>	<i>s. robusta</i> 75-80

„ „ Kolyma's Delta.

As this latter bird is generally considered to be the form found in the plains of Upper Assam during the winter and can hardly be the first two mentioned. I would draw attention to the short wing measurements of my specimens.

§ ♂, 1-5-03, has assumed the full blue throat; wing, only 73·5. All these specimens have a dark crown, similar to "robusta."

240. The Common Ruby-Throat. *Calliope calliope* (Pall.)

Blanford states this species was seen occasionally in the latter part of September, and more frequently in October, apparently coming from the north and migrating southward; one shot at Momay Samdong at 15,000' on the 19th September. It occurs in limited numbers throughout "the cold weather" in suitable haunts on the Outer Ranges; these Ruby-Throats are most likely merely a sprinkling of the numbers which perform the downward journey without a break to their more distant quarters. Gopaldhara, 3,500', ♂ 30-1-19*. 4,700', ♀ 5-2-18*. Thurbo, 4,250', ♂ 25-3-11, one of a pair. Turzum, ♂ 11-1-21, (O. Lindgren). Mangpu, 3,700', ♀ 3-3-20. 3,800', ♂ 5-11-20, (G. E. Shaw). Sukna, 550', ♂ 30-11-19, (C. M. Inglis). Two specimens examined: ♀ Wing 75·5-79, av. 77·3, compared with Assam skins, 3 ♂ ♂ wing 73·75·5, av. 74·5.

241. The Eastern Ruby-Throat. *Calliope pectoralis confusa* (Hart).

Recorded for Sikkim, "breeds 10,000' upwards". It may extend into the plains or even reach the base of the hills during "the cold weather," but I have no information as to this conjecture. It is sparingly distributed at this period of the year at moderate elevations in the Outer Hills, and its numbers are not so limited as seems apparent, as all Ruby-Throats are adept skulkers. Observed on a few occasions during November and December, one noted ♂ 9-11-21*, and one obtained at Gopaldhara, 3,500', ♂ 18-3-21. A pair observed at 4,300'.

22-4-23* were probably this species. Blanford records it as common on the Cho La Range, less abundant in northern Sikkim, August to September a 12,000', usually above the limit of the forest.

242. The Tibet Ruby-Throat. *Calliope pectoralis tschebaiewi* Prezew.

Recorded for Sikkim in its distribution. I am not aware of the reasons for regarding this bird as a sub-species of "*pectoralis*". Mandelli obtained it in March 1878 from Native Sikkim and both these Ruby-throats may well breed at high limits in Sikkim. It has recently been recorded from the Bhotan Dooars where, Mandelli also obtained specimens in "the cold weather." These birds may arrive in the plains by a more easterly route, as they were common in Upper Assam at this period of the year, being more numerous than *C. calliope*. As might be expected from my experience with its near ally, I have failed to discriminate the differences by observation, though I was well acquainted with it in former years. Sikkim appears to be the extent of its western distribution limits and probably *C. p. confusa* is the predominant bird in these hills.

243. The Golden Bush-Robin. *Tarsiger chrysæus* Hodgs.

Recorded as a constant resident at moderate heights on the Himalayas which is strictly not correct. Odd birds do rarely occur on the high ridges of the Outer Ranges in winter; these may be regarded as stragglers driven down from the extreme upper limit of their breeding range as this Bush-Robin is recorded as having bred at 12,500' in Sikkim (Hartert), whilst the majority move into the valleys to again ascend at the nesting season. I have noted it on three or four occasions at Gopaldhara at elevations of from 4,000'-4,500' during "the cold weather," the last instance being at 4,400', ♂ 28-12-21*. In the Mai Valley, East Nepal, 7,000'-8,000', 1 ♂ and 3 ♀ ♀ were obtained, 2—8-4-12. Darjeeling, south side of the station, at 7,500', ♂ 14-2-20, flitting about the road-side, remarkably tame, as it was in no way concerned with the passers-by; particularly raw weather at this time and hunger no doubt accounted for its unusual fearlessness. At most times, it is dislodged with difficulty from the dense growth it frequents on the valley-slopes; its golden-yellow plumage is seen only for an instant as it makes a hurried movement across an open space into an equally dense retreat. Obtained below Mangpu at elevations of from 2,400', 10-1-21, up to 3,800', (G. E. Shaw).

244. The Red-flanked Bush-Robin. *Ianthia rufilata* (Hodgs.).

Widely distributed during the winter at varying altitudes; odd birds occurring at 10,000' on the Outer Ranges simultaneously with the appearance of others at 3,500,' and a few on rare occasions may move down to the foot of the hills. I have no record to support this anticipation but was actually the case in Upper Assam when, it was obtained on a few occasions, on the North Frontier. I did not meet, however, with any birds in the Raidak Gorge in the Bhotan Dooars, in January 1922. The majority remain at elevations of from 7,000'-5,000', at this period of the year, and the following summary of records throughout these months is given, yet this Bush-Robin being by far the commonest in comparison with the other two species; this list by no means exhausts the innumerable times it has come under my observation. Gopaldhara, 4,720'. During December and January, an odd bird or two always frequent the compound. I noticed one secluded corner was a favourite abode, to be occupied regularly each successive year by evidently the same bird; as I remarked on its appearance on a subsequent visit that it had assumed the full adult garb. Others, invariably immature birds are to be seen on the outskirts of the forest. Obtained above the Tista Valley at 3,650', at Mangpu and upwards to Senchal

(G. E. Shaw). Semana basti, 6,000', adult ♂ 20-1-12*. Mirik, 5,200', December and January, 1911-12, adult males somewhat rare. Ghoom to Sookia Pokhari, 7,200', adult ♂ 19-1-12, noted as numerous hereabouts, 13-12-13* when several adult males were seen. Ghoom to Sonada, 7,300', adult ♂ 8-2-17. 7,200', adult ♂ 9-2-17.

Above Turzum, 6,000', adult ♂ 20-2-19.* Sonada to Senchal, 8,000', 24-3-15.* Lachung, 8,800', adult ♂ 1-3-20. Karponang, 9,500', ♀ 19-3-17. Tonglo, 10,000', ♂ 22-1-12, observed a female or immature male also in company with a male *Phoenicurus frontalis*; another specimen secured but subsequently lost (January). Kalo Pokhari, East Nepal, 10,160', ♀ 20-3-12, ♂ 1-4-12 ♂ 6-4-12; ♀ 8-4-12, numbers seen on other occasions. The male evidently takes more than one year to acquire the blue plumage of the adult; some males in female dress are breeding birds: a parallel case to *Heteroxenicus cruralis* and *H. nipalensis*. The bluish-grey supercilium seems to be confined to the female yet present to a less extent in the male when in the female phase of plumage. All such examples require care in preparation and carefully sexing. Eleven specimens examined:

♂ Wing 79.86.5, av. 81.3; ♀ wing 78.81, av. 79.5; whereas immature (?) males average 80, adult males run somewhat larger: the wing of a Lachung (interior of Sikkim) specimen measures 86.5.

Oates remarks that "males from Sikkim are very bright; those from other parts have the upper plumage a greenish-blue."

My four males are equally divided as regards this depth of coloration and the deep coloured birds are matched by a specimen from the Miri Hills, Assam. It is significant that *all these examples have a longer wing measurement than the greenish-blue birds* and is possibly a matter of age co-related with vigour: *the bases of the eyebrow feathers are white* giving the latter birds a distinguishing supercilium. Blanford records it from the Cho La Range at 12,000' (August).

245. The White-browed Bush-Robin. *Ianthia indica indica* (Vieill.).

The least common of the three species of *Ianthia*. Observed and obtained on the following occasions. Sookia Pokhari, 6,800', 13-2-20*, two or three at scattered intervals along the road-side; this *elevation is the lowest* at which it has been met with. Senchal, 7,750', ♀ 7-2-17, secured in dense undergrowth in forest. Mai "Khola", East Nepal, 8,000'-9,000', ♀ ♀ 23-3-12. Tonglo, 10,000', Sikkim side of the Frontier, ♀ 30-1-12, procured in a similar habitat and adjacent to where a ♂ *I. rufilata* was obtained. ♂ 5-2-12, a female seen on the 9-2-12*, in company with the male, but the growth was too dense to allow of my seeing the latter. Karponang, 10,500', in evidence towards the end of March, 1917.

Five specimens examined: ♂ Wing 83.84.5, av. 83.8; 2 ♀ ♀ wing 77.79.

246. The Rufous-bellied Bush-Robin. *Ianthia hyperythra* Blyth.

This handsome Bush-Robin has been observed and obtained on the following occasions. Nurbong, 1,085', ♂ 21-2-14*, observed at close quarters, having come out into the open after a heavy shower. Toong (interior of Sikkim), 4,300', ♂ 24-2-20. Gopaldhara, 5,000', ♂ 5-5-17*.

Sookia Pokhari, below, at 6,800', ♂ 20-2-19*, another ♂ and possibly two ♀ ♀ in the same locality. Ghoom, near the Pussimbing turning, at 7,300', ♂ 17-1-17, this bird was very tame and was observed later on during the first week in March, in the same identical place.

Karponang, 9,800', ♂ 17-3-17, and seen ♂ 24-3-17*. Sandakphu, 11,800', Nepal side of the mountain, ♂ 2-3-12, single bird only, secured amongst some dwarf rhododendron in a rocky gully on the bare slopes, no females obtained.



H. S. Photo.

DIKCHU DAK BW.

2,150'. Tista Valley. 23rd February, 1920. Tropical vegetation.
Haunts of *Melanochloa sultanea*, *Yuhina nigrimentum nigrimentum*,
Pericrocotus solaris, &c., &c.



H. S. Photo.

LACHUNG DAK BW.

8,800'. 8th March, 1920.
Surroundings, the haunts of *Fulvetta vinipecta vinipecta*, *Troglodytes troglodytes nipalensis*,
Perissopiza carnipes carnipes, *Carpodacus edwardsii saturatus*, &c., &c.

Five specimens examined :

♂ Wing 78.83.5, av. 80.3, for comparison (Assam) skins. ♂ wing 76.2 ; ♀ wing, 75.77.5.

247. The Blue-headed Robin. *Adelura cæruleocephala* (Vig.).

Its generally accepted place is now in the genus *Phœnicurus* ; the reasons for treating this species as a Redstart are not quite obvious.

Recorded "Himalayas 10,000' upwards in summer, much lower levels in winter." Obtained on one occasion only at a high altitude in winter. Apparently not previously recorded for Sikkim.

Saburkum, Nepal-Sikkim Frontier, at 11,500', ♂ 19.2-12. At first sight I mistook this bird for a Chat, notwithstanding, the lonely recesses of the pine forest, with the ground in places heavily covered with snow seemed a most unlikely place to meet with any *Saxicolas* ; secured in lonely company with a Wren (*Troglodytes nipalensis*).

248. Hodgson's Grandala. *Grandala cœlicolor* Hodgs.

Recorded for extreme elevations of not below 15,000', Sikkim. "Observed 17,000'" (Blanford). Occurs in the Lachung Valley above the village at 10,000', and upwards in winter, when they congregate in huge parties moving about the rocky slopes of the valley, and observed to come down to about 9,000' under stress of severe weather, at early morn, after a heavy fall of snow. Near Phalut summit, 11,700', 16.2-12*, an immense flock of these birds presumably, heavy mist at the time coming on, and I was making every effort to reach shelter before darkness set in, having been out in the snow the whole previous night.

In their "habits" they distinctly have close relationship with the Starling.

The young male is identical in plumage with the adult female ; the upper tail-coverts first showing signs of acquiring what will later be cobalt-blue when the complete change has been effected.

Oates makes no mention of the gloss in the plumage of the adult male ; the only Indian bird I know of which is similarly favoured, is the male of *Oriolus trailii*.

Eight specimens examined : ♂ Wing 140 in first stage,—148 in adults, av. 144.2 ; ♀ Wing 135.

Soft parts ; Iris hazel ; bill black ; gape yellow ; tarsus black.

249. The White-tailed Blue Robin. *Notodela leucura* (Hodgs.).

Occurs sparingly around Gopaldhara from 4,700', ♂ 5.11-18, up to 5,000, during "the cold weather" ; these being probably birds which have moved down from higher extremes ; its numbers being augmented during the nesting season by birds which have ascended in the summer. A juvenile in spotted plumage obtained at 5,000', 25.6-23. Observed at 6,500', ♀ 6.5-23.* Three secured 12—14.4-21 4,750'-5,000'. Mai "Khola East" Nepal, 8.4-12*, observed in dense forest in the upper reaches of the valley at 8,000', approx. elevation. Obtained in the hills above Mangpu at an elevation of 6,200'. (G. E. Shaw). Recorded breeding at Rishap, 4,000'. (Gammie). Lebong, 5,500'. (Mandelli).

250 The Blue-fronted Callene. *Callene frontalis* (Blyth).

Recorded only for Sikkim. Apparently rare with a restricted distribution. Represented by 13 ♂ ♂, January—May and 2 ♀ ♀, August and December. 1873-78. (B. M. Coll.). Inglis obtained it at Jore Pokhari, ♂ 7.7-04.

This species bears a strong superficial resemblance to *Notodela leucura*, and might easily be mistaken for it by the field-naturalist : the prominent white

markings on the tail of the latter species when expanded, could be the only reliable distinguishing clue to make note of, to settle the difficulty.

251. The Indian Magpie-Robin. *Copsychus saularis saularis* (L).

This songster is a summer visitor only to the hills on the western side of the district, and penetrates the deep valleys of the interior to a corresponding elevation. I have never obtained their eggs from an elevation of above 5,500', which appears to be the limit reached by a few birds. Odd birds may be seen in and about the compound of many of the tea-planters' bungalows, which are separated widely apart on the hill-sides of the Rungbung Valley.

Nurbong 2,000', ♀ 3-3-14*. ♂ 6-3-14*. Gopaldhara, 3,440', ♂ ♀ 30-3-18*. 4,720', 18-5-18, a single bird. 19-6-23*, a male in evidence. 29-6-15*, a male singly lustily at 6. a. m. in the bungalow compound; heavy rain last two days, having previously been seen on the first occasion, ♂ 12-4-15*, noted again 25-4-15*, and possibly 1-5-15*. Seeyok, 5,200', ♂ 22-3-16*. Observed below Gangtok at 5,000', 20-2-20*.

252. The Indian Shama. *Kittacincula macroura tricolor* (Vieill.).

Evidently confined to the base of the Lower Foot-hills, and has some status in the Tista Valley. Obtained up to an elevation of 3,800', below Mangpu (G.E. Shaw). Commonly occurs in the densely wooded country at the base of the hills in the Eastern Dooars, and almost equally as plentiful in the spare growth in the vicinity of habitations in the more open, cultivated country, where it is more accustomed to the presence of the villagers and in consequence less shy. Females are rarely seen strangely enough; they appear to be still more shy than the males.

Bhotan Ghat, Raidak River ♂ 20-1-22, this specimen has the tail 198 in length, whereas a Gauhati, Assam, ♂ also adult, measures only 142 and none of the seven Assam skins with which it has been compared approach in tail measurement anything like this Dooars example.

253. The Himalayan Blue Chat. *Larvivora brunnea* Hodgs.

Breeds sparingly around Gopaldhara at all elevations from 5,000' upwards. The nest is a shallow cup containing a few feathers; in the vicinity of Gopaldhara, the feathers of the Kalij Pheasant and the Red-throated Partridge are used: eggs, pale blue unspotted and usually four. Only once have I seen the male and female together during "the cold weather". 4,600', 10-1-19*. Three ♀ ♀ were secured in the Mai Valley in Nepal, 30th April to 22nd May, where also I obtained eggs. ♀ Wing 71-71.5, av., 71.3.

254. Gould's Shortwing. *Heteroxenicus stellatus*. (Gould).

Decidedly rare. Blanford is recorded as having obtained one specimen at an elevation of 12,000'-13,000' (Yumthang), and there are two or three specimens in the Tring Museum from somewhat higher limits. I have only managed to secure a solitary specimen, but this record is interesting as it proves this Shortwing does occur at much lower elevations. Notwithstanding, its breeding habitat is undoubtedly at extreme heights; some birds may breed at much lower levels, as is the case with the other Shortwings which have a breeding zonal distribution covering a difference in altitude of 5,000 feet on the Outer Ranges. Mai ("Kholā") Valley, East Nepal, 7,000' approx. elevation, ♂ 8-4-12. For some unknown reason this specimen is minus many of its wing feathers, which are in course of being replaced: Right wing, first four primaries not quite half grown, 5th-9th, intact, secondaries half grown. Left wing, 1st-4th primaries intact, 5th-9th, not quite half grown, six secondaries intact, remainder missing, showing

no sign of fresh growth. This bird, so seriously handicapped must have been almost incapable of flight; although there is every likelihood of this species making as much use of its legs, if we are to judge from the habits of the other species of this genus as they are skulkers with a partiality for keeping to the ground and could work their way up the mountain-slopes without any great effort from their wings.

255. The Rusty-bellied Shortwing. *Heteroxenicus hyperythrus*. (Jerd. & Blyth).

I have little information respecting this rare Shortwing which occurred in the Plains of Upper Assam "during the cold season." Observed at Tonglo, 9,700', ♂ 27-1-12,* in dense "maling" bamboo-growth. No specimens secured, however, as it was with difficulty I could force my way through the thickets and impossible to use a gun unless at close quarters, when the effect would certainly have been to the detriment of the specimen. Mr. G. E. Shaw has secured it at Mangpu at 3,800' in "the cold weather."

256. The Nepal Shortwing. *Heteroxenicus nipalensis* (Hodgs.).

Occurs around Gopaldhara sparingly at the nesting season at 4,700' and upwards. I have noted one specimen, ♂ 20-7-16*, singing lustily a few feet above the ground and judged to be a male. I obtained two males in the Mai Valley in Nepal at about 7,000' approx. elevation, 3—8-4-12. These birds are both in the normal dark slaty-blue plumage. My experience thus agrees with others in Sikkim where the blue phase of coloration is more generally met with; whereas it was the reverse in Assam, all the males obtained being in the typical female phase. ♂ Wing 60-61, av. 60·5. Assam skins for comparison. 4 ♂ wing 59-62·5, av. 61·9. 6 ♀ wing 55-59, av. 57·8.

257. The White-browed Shortwing. *Heteroxenicus cruralis* (Blyth).

Comparatively numerous yet far from common on the Outer Ranges and is migratory to some extent according to season. Obtained above Mangpu at 5,000'-5,300' in elevation. (G. E. Shaw).

There is some confusion in respect to the coloration of the adults.

The males of this Shortwing in many cases breed at the extreme upper limit of its distribution in the female phase of coloration. The white supercilium is present in the male only and not as stated by Oates "Common to both sexes, although absent in the young."

The following specimens have been examined:

Gopaldhara, Rungbong Valley, 4,700', ♂ 26-12-11, wing 68, in similar plumage to the female, supercilium present, others seen in the dense brushwood about this time. 5,000', ♂ 15-4-21. wing, 71·5. in slaty-blue plumage, testes enlarged, breeding. 26-6-17*, observed in the forest, uttering a single loud note. All eggs taken at Gopaldhara have been pure white.

Mai Valley, East Nepal, 9,500', ♂ 8-4-12, wing 68. ♀ wing 64·5, both in similar plumage, female without the supercilium.

Kalo Pokhari, 10,150', ♂ 12-5-12, wing 68·5, in female phase of plumage 10,160', ♂ 16-5-12, in slaty-blue plumage; female seen but not secured, being too near to shoot. Others seen on various occasions; males mostly in female garb. All these breeding males April to May, also have the supercilium as defined as in the slaty-blue specimens. On comparing skins from N. E. Assam, I find these are typical "*cruralis*"; 2 ♀ ♀ in my collection are more rufous than olive in comparison with skins from Sikkim and Nepal; the average wing measurement is larger 68-68·5, though neither of these measurements reach the measurement of the largest Sikkim male, the wings of which are 65·5-71·5, av. 68·3.

258. Hodgson's Shortwing. *Hodgsonius phœnicuroides* (Gray).

My observations are extremely meagre in respect to this Shortwing. Obtained on one occasion only at Gopaldhara at 4,600', ♂ 5-12-18, wing 72, in a female phase ? of plumage, and on the few occasions I have observed this bird, all have been similarly coloured, so it may be a parallel case to some of the members of the near genus *Heteroxenicus*. This specimen was shot in rank growth near the ground; at times, it appeared on the top of the vegetation and uttered a single "tsip" when its tail was raised almost perpendicularly; the eye was very prominent. Another seen, 10-3-19*, at a slightly lower altitude. 3,500', 7-11-21*. 3,450', 15-10-14.* 3,500', 24-9-20.* Nurbong, 2,000', 3-2-14*. These latter three records are not substantiated but most likely refer to this species as I only got a hurried glimpse, yet sufficient to make a mental note of the main characters. Obtained at Mangpu, 3,800', ♀ 19-2-20. (G. E. Shaw). Obtained by O'Donel in the Bhotan Doars, 500', ♂ 15-2-23, ♀ 8-2-23.*

Soft parts: Iris brown; bill plumbeous-olive, upper mandible darker than lower; tarsus plumbeous-olive; soles paler.

259. The White-collared Ouzel. *Planesticus albocinctus* (Royle).

"Charchar," Paharia, applied to all Blackbirds, Rock Thrushes, etc.

Recorded for the Himalayas, "in summer found up to 13,000', Cho La Range, August, (Blandford), in winter down to 7,000'." Observed and obtained at elevations of from around 5,000' up to 10,000' I have no record for a lower limit in these hills. On the North frontier of Assam it was secured on a single occasion at the base of the Daffa Hills.

Mirik, 5,200', 14-1-16*, one female observed, and large parties of other species of Ouzles, amongst which was *P. atrogularis* identified with certainty. Chungathang, 5,350', 24-26-2-20, several in evidence, scattered about the maidan. Gangtok, 5,800', early March 1917, numbers observed.

In the beautiful grounds of the Residency, their presence was an additional charm to the velvety lawns. Lachung, 8,800', a single pair noted during the first weeks in March, 1920. Karponang, 9,500', ♂ 21-3-17, this bird being the fore-runner of the numbers which would arrive before many days elapsed. Blandford records it from Lachung at 8,000' in September. Seven specimens examined; ♂ Wing 140-141, av. 140-5. ♀ wing 132-139, av. 136.

Soft parts; Iris brown (of a definite colour, not hazel); bill ochreous-yellow dusky at tip; orbits ochreous-yellow; tarsus dark ochreous-yellow.

260. The Grey-headed Ouzel. *Planesticus castaneus* (Gould).

Evidently one of the least plentiful of the members of this genus. Obtained on one occasion only at Kalo Pokhari, Singile la Ridge, 10,000', ♀ 3-5-12, wing, 133. This female is in slightly abraded plumage. Its condition, taken in connection with the circumstances under which it was obtained, indicated breeding hereabouts in the dense vegetation below the Ridge, on the Sikkim side of the Frontier. The following day there was an appreciable increase in the number of birds to arrive from below: *Ianthocincla ocellata*, *Tesia castaneo-coronata*, *Petrophila erythrogaster*, *Urocissa flavirostris*, which last had been absent for some time. Adversely to these additions, and contrary to my accustomed meeting with the party of *Chelidorhynx hypoxanthum*, which had haunted the ridge until this morning, it was apparent, they had ascended to even higher limits. In my "Notes on the Birds of Upper Assam", I recorded a ♂ wing, 142, obtained on the 4-3-05 at Dejoo, N. Lakhimpur, under the typical form. This record refers to a cold-weather migrant of the eastern race.

This is probably the first occasion *Planesticus castaneus gouldi* (Verr.) has been obtained within strict Indian limits. Lord Rothschild showed me specimens of a light and dark-backed form amongst a collection from N.W. Yunnan; which may eventually require separation, the bulk of the breeding birds being the dark-backed form, while some are the light-backed form; these last agree with Chinese (Chihli) birds to which my single bird is referable. For this information consult *Novitates Zoologicae*, Vol. XXX, 1923, No. 1, pp. 42, 43.

261. The Dusky Ouzel. *Planesticus eunomus* (Temm.).
(*P. fuscatus* (Pallas) auct.).

Recorded as obtained in Nepal by Hodgson. Likely to occur as a rare migrant; though I have no knowledge of any record for the Sikkim Himalaya and it is not represented from this portion of the Himalayas in the B. M. Collection.

262. The Red-throated Ouzel. *Planesticus ruficollis*
(Pall.).

Observed and obtained at elevations of from about 3,000' upto 10,000'. Cedars Balasan Valley, 3,200', ♂ ♀ 5-4-17,* beautiful adult birds. Gopaldhara, Rungbong Valley, 4,720', ♂ ♀ 7-4-15*. Above Mangpu at 5,000' (G. E. Shaw). Chungthang, 5,350', 24-26-2-20, plentiful on the maidan; on the 11-3-20 had diminished in numbers. Semana basti, 6,000', 8-2-17*, many in evidence. Kalo Pokhari, 10,160', 1-4-12, several seen amongst the snow. Six specimens examined: ♂ Wing, 140-144, av., 142. ♀ wing, 130-136.5, av., 133.6.

263. The Black-throated Ouzel. *Planesticus atrogularis*
(Temm.).

Undoubtedly the most plentiful and widely spread of all the Ouzels. In common with several of the other species, delights in open, bare tracts in winter where they have the necessary scope, and being at this time generally shy can more easily avoid one's approach. Gopaldhara and Mirik, late December 1911 and early January 1912, specimens obtained 1-12-1-12. Gopaldhara, 4,720', ♀ 8-4-18. Temi, 5,000', 16-3-20,* numbers of Blackbirds sp? sp? but this bird identified, distributed over the bare surrounding waste. Seeyok, 5,200', 22-3-16,* two birds noted. Kalo Pokhari, 10,000', ♀ 18-4-12, numbers seen on various occasions previously to this date, adult males being rarely represented. Obtained at Mangpu from 3,860'-5,000'. (G. E. Shaw).

Ten specimens examined from various parts of N. E. India:

♂ Wing 131-139, av. 134.5. ♀ wing 127-134, av. 130.8.

These five females are quite distinct in coloration from the females of *P. ruficollis*. There are no rufous marks on the tail and throat; in one specimen only is there a rufous tinge on the flanks, which is not to be found in any of my specimens of *P. ruficollis*: the red coloration on the throat in these skins being distinctly terminated on the upper breast in a defined band.

I have not followed the generally accepted treatment of regarding *atrogularis* a form of *P. ruficollis* as I consider both to be well-marked species.

264. The Grey-winged Ouzel. *Planesticus bouboul* (Lath.).

This Ouzel exerts its vocal powers at the breeding season, when it deservedly takes a leading place amongst a none too plentiful company of competitors. Recorded upto 8,000' from the base of the hills. During the cold-season stragglers descend to the Terai, whilst *not extending over the plains* as several of the other Ouzels do, being much more sedentary in their habits, notwithstanding there is a change in its distribution according to season, as there is a marked increase in its numbers around Gopaldhara, where it commonly breeds at elevations of from 4,500'-6,500', and it is equally numerous in the Mai Valley

in Nepal at elevations up to 9,000' in March and April. Gopaldhara, 5,000'. 8-3-16.* A large congregation of thirty to forty birds, both sexes in about equal numbers, preparatory to nesting. Ten specimens examined: ♂ Wing 140-151, av. 144.8. ♀ wing 131-141, av. 135.8.

265. Tickell's Ouzel. *Planesticus unicolor* (Tick.).

Recorded for the Himalayas to Sikkim, "in summer up to about 7,000' ". My impression is this Ouzel breeds in the regions far beyond or at extreme high elevations only, whatever its breeding habitat is in the N. W. Himalayas. It is decidedly uncommon, and I have only met with it on the Semana Mirik Ridge above Gopaldhara at 6,000', when females were obtained; two on the 4-11-19 and two on the 9-11-19. Obtained as low as 600' at the base of the hills. (G. E. Shaw).

Four specimens examined: ♀ Wing 116-123, av. 119.8.

Soft parts: Iris brown; bill olivaceous-horny, culmen and edges lighter lower mandible lighter than the upper mandible; tarsus ochreous-horny, darker at the front.

266. The Dark Ouzel. *Planesticus obscurus obscurus* (Gmel.).

Recorded for Sikkim. So far not obtained by either Mr. G. E. Shaw or myself. Not represented in the National collection from the Sikkim Himalayas which appear to be west of its main southerly migration route, though there is a single specimen, reputed locality Nepal, without further data, *ex* Hodgson Coll.

267. The Pied Ground-Thrush. *Geocichla wardi* (Jerd.).

Recorded as "summers in the Himalayas (Sikkim) up to 6,000' or 7,000' ".

The only occurrence of this rare Thrush which has come to my notice is that of an adult ♀ 24-4-20, obtained above Mangpu at 3,800'. (G. E. Shaw).

Represented in the Tring Museum, ♂ 17-6-75, *ex* Elwes Coll. and in the B.M. Coll., ♂ March, 1879, ♀ April 1876.

268. The Orange-headed Ground-Thrush. *Geocichla citrina citrina* (Lath.).

Recorded as found in summer throughout the Himalayas up to 5,000' or 6,000'. This Thrush comes up the Rungbong Valley to breed and is sparingly distributed in the interior of Sikkim. The majority no doubt nesting in the densely forested tracts at the base of the hills. Obtained at elevations of 3,400'-3,900' around Mangpu. (G. E. Shaw).

Gopaldhara, 3,800', 25-4-16*, a pair of this Thrush foraging amongst dead leaves and decaying vegetation, somewhat shy, yet they allowed me to obtain a satisfactory observation. ♂ 4-7-16,* seen on this occasion, a short distance below, on the path. 4,720', 21-7-23,* warm with drizzling rain, a male in evidence this morning, its vocal efforts by no means to be despised, but the occasional sustained production more often than not gives way to a medley of notes with no apparent connection to its main effort.

Between Pakyong and Rungpo at 3,200', approx. elevation, ♂ 27-3-17, procured in a narrow fissure of a coppice on the hill-side.

I have two males only for comparison (Sikkim) ♂ Wing 123. (Assam) ♂ wing 113. ♀ wing 114, all adults. A series from these two areas is desirable for further information.

269. The Blue-headed Rock-Thrush. *Petrophila erythrogaster*. (Vig.).

During the breeding season occurs commonly in the Bungbong Valley from 5,000' upwards, and at this time is plentiful at 10,000' on the Singile La Ridge (April-May). Stragglers descend to the base of the hills in the cold-weather.

Observed at the bottom of the Rungbong Valley at 3,500' in January, and obtained as low as 2,200' in the Tista Valley. (G. E. Shaw). Bhotan Ghat, Raidak River, 30-1-22, when I observed a male taking toll of an odd white butterfly *Appais* sp. ? on the outskirts of the forest. Lepcha Jagat, near Ghoom, 7,200', 28-5-16*, a female at work, building her nest near the road-side. Semana basti—Mirik ridge, 6,500', 24-5-23, * a female complacently sitting on her eggs; nest in bank at road-side; standing a poor chance of survival, as events later proved. The majority of the birds breed at 7,000' upwards in the Mai "Khola" in East Nepal. Eight specimens examined: ♂ Wing 122-127, av. 124.2. ♀ wing 118-122, av. 119.7.

270. The Blue-headed Rock-Thrush. *Petrophila cinclorhyncha* Vig.

This Rock-Thrush arrives at Gopaldhara in late March or early April, and nests sparingly in the Rungbong Valley. It has a *similar breeding distribution to *P. erythrogaster* on the Outer Ranges* generally. Its occurrences are always worthy of note and its vivid colours lend itself to easy observation; the female is not so easily located, but the birds are at this time invariably in pairs.

Obtained below Mangpu, 3,000' (G. E. Shaw). Gopaldhara, 4,720', ♂ early April 1914; ♂ 1-4-17; 4,500', 2♂♂ 1♀ 8-4-17; ♂ 8-4-18; ♂ 19-4-19; 4,650', 13-8-21*, a juvenile female, observed at close quarters, evidently had recently left the nest. Avongrove, Balasan Valley, 3,500' ♂ ♀, 24-3-15.*

Kalo Pokhari, 9,000', approx. elevation, ♀ 5-4-12, ♂ 10-4-12, 10,160', 15-4-12,* a pair in evidence.

I have never seen it in "the cold weather" when it appears to be entirely absent from the hills.

Three examined: ♂♂ Wing 103-104; ♀ wing 100.

271. The Eastern Blue Rock-Thrush. *Petrophila solitaria pandoo* (Sykes).

Occurs in the Tista Valley during the *cold-season*, where I have seen it above Tista Bridge at 750' and it has been obtained at elevations of from 1,100'-3,500' in this valley. (G.E. Shaw). It appears to be *only found at low elevations* at this period of the year and I have no information respecting its distribution in the summer, if it is then to be found in these hills. This Rock-Thrush was obtained by the first Mount Everest Expedition at 12,500' and occurs up to 13,500' in Garwhal (Kinnear, Ibis, July 1922, pp. 507-8).

272. The Small-billed Mountain-Thrush. *Oreocincla dauma dauma* (Lath.).

Apparently *breeds* around an elevation of 8,000' and upwards, descending to lower elevations after the nesting season and occurs at this time in the bottoms of the valleys in the interior. Observed and obtained on the following occasions; Gopaldhara, 4,720', 27-4-16*, single, 19—20-4-18.* Single, 18-4-23*, ♂ 12-4-17; ♀ 7-4-19, killed by dashing up against the glass-panes of the verandah; not the first occasion I have known of this accident happening to this species. Sungma, 4,500', ♂ 18-4-17. (C.E. Brown). Gopaldhara, 4,700', 26-9-20*, single, first arrival. 5,500', ♂ 21-12-11; 5,800', ♀ 23-11-20; 5,500', ♂ 21-12-11; 4,720', ♂ 7-2-18; 5,700', 9-2-19; 5,500', ♀ 11-2-19; 5,800', ♀ 27-2-19.

Penlong La, 6,300' to Dikchu, 2,150', 22-2-20*, single birds about the rocks on the road-side and very tame. Chungthang, 5,350', 24—25-2-20, numerous and loath to leave their feeding grounds. Obtained from an elevation of 1,000' upwards in the Tista Valley to Mangpu, 3,850', ♀ 26-3-15, (G.E. Shaw). Kalo Pokhari, 10,000', ♀ 9-4-12.

Seven specimens examined: Wing, 142-146, av., 143.9. These measurements overlap in each sex, males being slightly larger.

273. The Plain-backed Mountain Thrush. *Oreocincla mollissima mollissima* (Blyth).

This Thrush is a cold-weather visitor to Gopaldhara, and as it arrives later than *O. dauma*; it is to be presumed its *upper breeding limits* somewhat exceed those of *O. dauma* and this conjecture has been substantiated by observation, when I found *O. mollissima* in the interior of Sikkim at Karponang ascending with the imminent hot weather, 9,600', 25-3-17,* a single bird; obtained previously, on a raw, wet afternoon at 8,000', ♂ 16-3-17. The majority of the birds spend the winter at 5,000' and upwards. Tonglo, near the summit on the Nepal side of the Frontier at 10,050'. In early February 1912, for two or three days only during a "brief" mild spell of weather, odd birds were in evidence. Mai "Khola", East Nepal, 7,000'-8,000' ♀ 28-3-12; ♂ 9-4-12. Ghoom to Sookia, Pokhari, 7,200', ♂ 19-1-12, numbers of others observed. 7,000' ♂ 9-12-17. Semana Basti, 6,500', ♂ 7-2-18.

Gopaldhara, 5,000'-6,000', ♀ 4-1-12, others seen. 4,500', 13-10-21, first arrival, dirty weather for the three previous days. 4,720', ♂ 13-4-17, a pair observed the previous day.

Eight specimens examined: ♂ Wing 139-146, av. 143.7. ♀ wing 140-141, av. 140.5.

One other specimen of the suppressed "dixoni" obtained at 6,000', 4-1-12; wing, 133, is evidently an immature bird. I can detect no difference in the tail measurement. I regard the fulvous tips to the median and greater wing-coverts as a sign of immaturity; a more definite character for differentiation is the absence of the bars on the breast; it thus exhibits a larger patch of white, and in this respect on the underside resembles *O. dauma*.

274. The Himalayan Whistling Thrush. *Myiophonus horsfieldi temminckii* Vig. "Kholchhara", Paharia.

This handsome and sprightly Thrush is undoubtedly one of our finest songsters. It is a gratifying experience to have this bird take up its quarters adjacent to one's home, as it is then its rich notes can be heard to advantage, as it pours out at sunrise its pleasing trill. One welcomed bird took possession of the precincts of the Gopaldhara Bw. During each successive cold-weather, daily, we were duly warned of its arrival, as the various stages it took in its hops to gain a commanding point of vantage on the corrugated-iron roof were quite audible, when we had not long to wait for the forthcoming melody. In January 1921, it became very tame and would make an early visit to the plant-pots on the verandah; as the warm weather appeared we lost its company, its visits becoming of less frequency until its disappearance. In another instance the fates were not so kind, as it was with regret we found our friendly visitor one morning helpless, evidently having dashed in its flight when disturbed, against one of the side walls, from the effects of this injury it never recovered. A few remain at extreme limits in winter up to 9,000', Tonglo, Meehi Valley in Nepal, 5-2-12. Lachung, 8,800', a pair or so about 27-2-10-3-20, and this no doubt is the case for lower limits, stragglers being found at the foot of the hills in winter. The majority, however, breed at moderate elevations, as low as 3,440' and upwards in the Rungbong Valley. They cling in true conservative custom to a favourite haunt at the nesting period, occupying the same secluded rock, overgrown with vegetation, for preference, which unfortunately, they readily betray to the astute paharia urchin.

275. The Large Brown Thrush. *Zoothera monticola* Vig.

Generally distributed on the Outer Ranges. Obtained at Gopaldhara, 5,000', ♂ 26-3-15, wing, 135, and on Tonglo at 9,700', ♂ 15-2-12, wing, 145, one of a pair, secured in swampy ground in dense forest-undergrowth. During the early part of the South-west monsoon in June, I have observed scattered birds feeding on the side of the Sookia Pokhari to Ghoom road at an elevation of 7,200'. Obtained in the Tista Valley at 2,500' in October 1912. (G.E. Shaw). It escapes observation due to its partiality for dense matted undergrowth in heavy forest. Blanford obtained one specimen at 10,000' in the Lachung Valley (September).

276. The Lesser Brown Thrush. *Zoothera marginata* Blyth.

Apparently comes up to breed around Gopaldhara when it is found up to an altitude of 5,000' or thereabouts. Recorded as a permanent resident throughout its range. This statement does not hold good for this part of the district as it is *absent during "the cold weather"*. Gopaldhara, 4,700', 19-7-21*, a pair observed at close quarters 5,000', ♀ 5-6-21, caught on nest, containing three eggs.

Soft parts: Iris hazel; tarsus olivaceous-plumbeous.

277. The Purple Thrush. *Cochoa purpurea* Hodgs.

Recorded without doubt as a permanent resident up to 8,000' at least. I have no hesitation in stating this information to be misleading as apart from its rarity; there is little likelihood of meeting with it in "the cold weather" when collecting is not as restricted as it is in "the rains", and though odd birds might remain in the bottoms of the deep valleys, only systematic searching during April to May onwards will reveal its status, when it is certain to visit its breeding grounds in common with numerous other species of Ground-Thrushes. Once obtained above Mangpu at an elevation of 5,000', ♂ 13-5-20. (G.E. Shaw). Blanford obtained one specimen on the Cho La Range, Kaphu? (Kapup) at 10,000', 28-8-70. Represented in the Tring Museum, ♂ ♀ June, *ex* Elwes Coll.

In the B.M. series there are seven adults, April-August, three juveniles, August and September and a single immature male, January 1876.

278. The Green Thrush. *Cochoa viridis* Hodgs.

This brilliant Thrush is represented in the Tring Museum from Yunnan, (Forrest) and Amoy, December 1867, (Swinhoe) though only recorded for the Himalayas, Kumaun to Sikkim up to 11,000'. I have no first-hand information respecting this rare species. Its correct status, which will only be defined by a laborious search over a wide extent of country, at present remains somewhat a mystery. It is represented from the Sikkim Himalaya by two specimens from Gokh, Rammam Valley, 2,500'-3,000', 24-7-70, Tring and British Museums, and five others, of which one is a juvenile, same locality and date, April, June, July, B.M. Coll.

279. The White-breasted Asiatic Dipper. *Cinclus cinclus cashmeriensis* Gould.

Recorded for Sikkim from 9,000'-14,000', and under *C. sordidus* at 15,000' at which elevation Blanford appears to have met with this Dipper in Sikkim. These two birds are now generally recognized to be one and the same species. Mr. N. B. Kinnear in his article "On the Birds of the First Mt. Everest Expedition", Ibis., 1922, page 507, supports Dr. Hartert in his treatment in sinking "*sordidus*" which is merely a dark phase. It was obtained at elevations of from 12,000'-17,000'. (A.F.R. Wollaston.)

280. The Brown Dipper. *Cinclus pallasii tenuirostris*
Bonap.

This Dipper frequents every river of importance, where it can procure sufficient sustenance, and only on occasions forsakes its accustomed haunts for the minor streams which add their quota with varying speed and volume from every conceivable gully in the vast conglomeration of mountain ranges. It plays only a secondary part, however, to the Forktails, which regard these retreats as their own preserves. There is no more fascinating bird to watch in spite of its shyness, as it dips under the water to return shaking itself free from moisture and curtesying from its point of vantage.

Mai "Khola", East Nepal, 7,500', approx. elevation, ♂ 14-5-12, adult, wing 101, testes minute, plumage showing little sign of wear, partial moult on back, evidently nesting season completed. ♂ 21-5-12, youngsters ready to leave the nest in the first stage of plumage. It breeds at a much later period in its higher limits than it does in the gorges of the rivers on the North Frontier of Assam, where it accommodates itself to local conditions as previously recorded in my "Notes on the Birds of Upper Assam." In comparing immature birds in various stages of plumage and dates on which eggs have been taken in Assam, there is a *difference of five months apparent between the nesting period at these levels*. I have no information as to whether it is double-brooded or not in the hills; in the latter event there must be a heavy percentage of deaths through some unknown cause, as they breed in secluded and generally inaccessible places, and it is remarkable that it is not more in evidence, instead of the few scattered birds that invariably attract notice.

281. The Eastern Alpine Hedge-Sparrow. *Laiscopus collaris nipalensis* (Blyth).

The winter distribution of this Accentor is especially interesting. It *never descends below 9,000' on the Singile La Ridge* and at about 9,500' in the mountains to the north-east of Gangtok. In the *Lachung Valley* it occurs at 8,500' and on occasions 2,000' lower. When one considers to what extreme heights it attains in the summer; the extraordinary low limit reached in this valley is remarkable, but as an elevation of 6,500' hereabouts sharply defines the delineation between the two zoological regions, both in respect to animal-life and the vegetation; it is appropriate that this typical high-elevation species should share, with other strictly sedentary Palearctic species, the distinction in descending to this low limit, notwithstanding the fact that its breeding habitat is likely to be only at high altitudes. A summary of my observations and records during the winter is as follows: Sandakphu to Phalut, 11,600', ♀ 16-2-12; one of a pair. Sandakphu, 11,800', ♂ 7-3-12; 9,000', ♂ 14-3-12. Observed on a few other occasions, invariably in pairs amongst the huge boulders on the exposed southern face of the mountain. In this locality they seek shelter and obtain the necessary protection under stress of severe weather. At times seen on the bare open patches of ground on the "dharas" or ridges and found foraging when the ground was heavily covered with snow. Very wild and generally difficult of approach unless taken by surprise. Karponang, 10,000', ♂ ♂ ♀ ♀, 17-22-3-17; all obtained when frequenting rocky, boulder-studded ground. A single bird to be seen every morning during our stay, in and about the drains of the detached cook house at Karponang Dak Bw. at 9,500'; unobtrusively attending to its wants with the confidence of a town-sparrow. Lachung, 8,500', ♂ 5-3-20. A few birds at scattered intervals along the pleasant, wooded path which followed the gentle undulations of the open valley; they had got accustomed to the daily passing to and fro of the few villagers, being in no way perturbed at my presence. Near Kedom at 7,500', 11-3-20, a single bird seen, and between Kedom and Chungthang at 6,500' on the same day, another

bird; both of which, were to all appearance, lethargic with the heat in this, the narrow portion of the valley. The almost sudden change from the rigorous cold which I had recently experienced to the delightful warmth which became more marked with the rapid descent was just to my liking. Blanford never met with this bird below 14,000' in the Lachung Valley but not in the Lachen Valley (September).

I have an aversion to calling this bird a Hedge-Sparrow. It somehow seems inappropriate to link it with the little, sombre bird of rural England. Similarity in form, movement, and not least the ability to withstand a rigorous climate are traits in common; yet its chosen home is the inhospitable, vast mountain-tracts of the Himalayas, whose rocks and boulders do not coincide with English hedgerows. We are apt to overlook the significance of our trivial and common-place names. Changes in the scientific names of some of our familiar birds have taken place in recent years rendering the employment of the trivial name almost a necessity, and the importance of these names may come more into prominence until we have obtained uniformity!! This bird has been singularly unfortunate with its share of generic changes. Five specimens examined: ♂ Wing 98-102, av. 101. ♀ wing 92-96, av. 94. Soft parts: Iris bright brown,—“a defined brown, not hazel”; bill black, excepting base of lower mandible to the extent of two-thirds ending in a point at edge of bill deep yellow; tarsus cinnamon-ochreous; claws black; soles greenish-ochreous.

The following records have no direct connection with this paper but being of remarkable interest are thus inserted. A pair observed at 21,000' and the Mount Everest Expedition obtained it along with the Redstart (*Phoenicurus ochrurus rufiventris*) at 18,500', on the 20th July and 20th September 1921 respectively, the greatest elevation from which specimens were brought back. Kinnear, N. B., Ibis, July 1922, pp. 508-510.

282. The Altai Hedge-Sparrow. *Laiscopus himalayanus* (Blyth).

The only locality where I have obtained this bird is above Karponang at an elevation of 9,800'-10,000' during March and although I only secured one ♀, 17-3-17; numbers were to be seen in their accustomed haunts, dodging in and about the crevices under rocks, occasionally a bunch of them would rise up for a brief interval and just as quickly settle a short distance away.

283. The Maroon-backed Hedge-Sparrow. *Prunella immaculatus* (Hodgs.).

Sparingly distributed and of irregular occurrence at elevations of from 7,000'—8,000' during the winter. Ghoom to Sookia Pokhari, 7,200', ♂ ♀ 19-1-12, secured out of a party, located on the trees adjacent to the road-side, when the road was clear they would recommence feeding on the ground. Senchal, 8,000', ♂ ♀ 6—7-2-17.

Four specimens examined: ♂ ♂ Wing 85-87. ♀ ♀ wing, 74-78.

284. The Robin Hedge-Sparrow. *Prunella rubeculoides* (Hodgs.).

Obtained by the Mount Everest Expedition at 17,000'.

Recorded for Sikkim above 14,000', (Blanford) and June and October specimens from Sikkim examined by Oates. There is little doubt that this *Accentor* occurs only at extreme high limits. I have no information respecting its status in the winter with the exception of a doubtful observation of a single bird on Sandakphu summit at 11,800' on the 15-2-12.* My inability to secure it, was due to a series of misfortunes: a heavy mist, snow-covered ground, and biting cold impeding my movements and sight. I was yet to undergo further trials:

a night by the road-side, two days without food at Phalut, an additional day to reach the Sandakphu rest-house, which we had overshot in the darkness, having covered 39 miles and more on foot since the last square meal in the meantime, as the pack-pony drivers with my camp kit and provisions lost heart at the snow-drifts on the track, choosing to leave my trusty servant and myself to our own resources. Blanford speaks of this bird replacing *Laiscopus nipalensis* in the Lachen Valley where he found it above 14,000' together with *Fringillauda brandti hæmatopyga*, *Otocorys alpestris elwesi* and other birds belonging evidently to the Tibetan fauna.

285. The Brown Hedge-Sparrow. *Prunella fulvescens fulvescens* (Severtz.).

Obtained by the Mount Everest Expedition at 13,500'.

Recorded for Sikkim in winter only; Mandelli having procured this species in the country north of Sikkim; so it is safe to presume this *Accentor* is also confined to *extreme high limits*.

286. The Rufous-breasted Hedge-Sparrow. *Prunella strophiatus strophiatus* (Hodgs.).

Blanford records it from Yumthang 12,000' (September) and it was obtained by the Mount Everest Expedition at 15,500'.

Sparingly distributed *during the winter* at elevations of from 7,500'-9,000', Outer Ranges, Jalapahar, 7,500', ♀, 13.2.20, several about amongst the rocks, when it was observed to be an adept skulker and to remain very silent, Interior, Lachung, 8,800', ♂ 28.2.20, ♀ 1.3.20, where it was apparently far from numerous.

Five specimens examined: ♂ Wing 68-71, av. 69.5. ♀ wing 65-67, av. 66.5. Soft parts: Iris bright brown; bill horny-black, base of upper mandible, ochreous; tarsus ochreous-pinkish; claws dusky-horny.

287. The Fairy Blue-bird. *Irena puella puella* (Lath.).

Probably not found far above the base of the hills. Obtained at *plains-levels* in the Darjeeling District. (G. E. Shaw).

Recorded up to 4,000' which may be safely regarded as too great an extreme for the Sikkim Himalaya.

288. Hodgson's Munia. *Uroloncha acuticauda acuticauda* (Hodgs.).

Occurs in the Rungbong Valley up to about 6,000', and around Mangpu at 3,850' above the Tista Valley (G. E. Shaw). In this last locality Gammie remarks on it breeding during a period from the middle of June to the middle of August at 2,000'-4,000'.

289. The Spotted Munia. *Uroloncha punctulata punctulata* (L.).

Breeds plentifully at Gopaldhara up to 5,000', and at a similar elevation, 4,800' around Mangpu. (G. E. Shaw).

290. The Allied Grosbeak. *Perissospiza icteroides affinis* (Blyth).

This fine Grosbeak occurs sparingly on the Singile La Ridge *during the winter* and evidently does not descend to a lower limit than about 9,000' on either side of the Nepal-Sikkim Frontier.

Tonglo, (Nepal) 9,500', ♂ 30.1.12, bill 24, wing 126, one of a small party, an adult bird: some of the primaries not fully grown. Tonglo, (Sikkim) 9,900', ♀ 12.2.12, bill 23, wing 132, one of six birds or thereabouts, frequenting the tops of the high trees.

Soft parts in the female: Iris brown; bill greenish-blue (sea green); tarsus fleshy; claws horny.

291. The White-winged Grosbeak. *Perissospiza carnipes* (Hodgs.).

Apparently replaces *P. ictoroides affinis* in the Interior of Sikkim. Fairly numerous around Lachung at elevations of 8,500' to 9,000' during February and March 1920, mostly in scattered pairs. 8,500', ♀ 9-3-20; 8,800', ♂ 9-3-20, in the female phase of plumage, one of a pair of similarly coloured birds; the female being in distress and averse to leave its companion, giving every indication this male was paired for nesting. 9,000', ♂ ♂ 1-6-3-20. Karponang, 9,600', ♂ ♀ 23-3-17. 10,500', ♂ ♀ ♀ 19-3-17, obtained near the snow-line.

There is little likelihood of this Grosbeak being found at the recorded low elevations "occasionally descends to 5,000'," "generally above 8,000'," as it has a definite *Palaearctic status*; so far not obtained below 8,500' in the interior. Nine specimens examined: In seven out of this series the bills are smeared with a black, resinous matter—the viscous juice of some favourite berry. ♂ ♀ Bill from feathers at base 20-22, av. 21. Wing 113-120, av. 115.5.

Soft parts: ♂ Iris brown; tarsus plumbeous-brown.

292. The Spotted-winged Grosbeak. *Mycerobas melanoxanthus* (Hodgs.).

Reported to me by the late Mr. W. K. Webb as having occurred at Pobong at 5,500' below the Ghoom to Sookia Pokhari Ridge, and obtained above Mangpu at 4,400', ♂ ♀ 12-3-21. (G. E. Shaw). There is little doubt that this Grosbeak covers a wider extent of country during the winter. Its *breeding habitat* must however be at *extreme high altitudes*. As it is decidedly rare, information respecting its appearances is most desirable. Elwes obtained a specimen at (Yumthang) Yeomatong at 11,000' in the upper limits of the Lachung Valley as recorded by Blanford.

293. The Red-headed Bullfinch. *Pyrhula erythrocephala* Vig. "Kohyu," Lepoha.

During the winter and early summer this Bullfinch is found at considerably lower limits in the Interior of Sikkim than on the Outer Ranges at a similar period of the year. Dikchu-Singhik, at 3,650', 22-2-20*, observed hereabouts. Singhik at 5,200', ♂ 12-3-20, several scattered birds composing a party in which the sexes were equally divided. Gangtok, below the Durbar Hall and close to the Bazar at 5,700', 15-3-20*, a small party entirely composed of six males, remarkably confiding, feeding on the nettles at the side of the path. Temi (south of) to Namchi, at 6,650', 15-3-20*, three parties observed hereabouts, feeding on the seeds of the rank nettles which grew in profusion on the hill-side. Lachung, 9,500', ♀ 2-3-20, one of a pair, and likely to be an early nesting couple, as the majority of the birds were at much lower limits at later dates. Tonglo, Sikkim side of the frontier, ♀ ♀ 21-1-12, ♀ 26-1-12, occurred on both occasions, in small parties entirely composed of females; on no single occasion did I ever come across a male. Obtained on Sandakphu at 11,900', ♂ 14-8-05. (C. M. Inglis). Blanford obtained it on the Cho La Range at 11,000' and also in the Lachen Valley and states not common in North Sikkim. Six specimens examined: ♂ Wing, 77-78, av., 77.5. ♀ wing, 76-78.5, av., 77.7.

294. Beavan's Bullfinch. *Pyrhula erythaca erythaca* Blyth.

Recorded for Sikkim. Evidently very rare and confined to *extreme high altitudes*. Neither Blanford nor Elwes met with it in the far interior. Represented in the National Collection by 7 ♂ ♂, collected in April 1874 from Sikkim.

295. The Brown Bullfinch. *Pyrrhula nipalensis nipalensis* Hodgs.

I have failed to locate this Bullfinch in the Interior of Sikkim.

It occurs *more frequently on the Outer Ranges*. Obtained near Sonada at 6,500', ♂ ♀ 9-9-19. (G.E. Shaw). Kalo Pokhari, Nepal-Sikkim Frontier, 10,160', a small party observed adjacent to my camp in early May 1912. They were entirely absent along the Ridge during the winter months when there is little doubt they had descended to lower limits. It has been obtained in summer on Tonglo at 10,000', ♂ 30-6-04. (C. M. Inglis). Blanford obtained it in the Lachen Valley at about 10,000', but states not of frequent occurrence which remark also applies to *P. erythrocephala*.

296 The Gold-headed Bullfinch. *Pyrrhoplectes epauletta* (Hodgs.).

Descends to the valleys in the winter, and is attracted to patches of ground overgrown with nettles, the seeds of which are a favourite food of all the Bullfinches. Hooker mentions two species of nettles, both of which virulently sting (*Urtica crenulata*) occurring in the valleys of the interior and (*Urtica heterophylla*) as being found in the valleys of the outer ranges.

During one cold-weather obtained at elevations of from 4,650'-4,720' around Gopaldhara, ♂ 26-3-11, ♀ 30-3-11. Temi (south of) at 6,700', 15-3-20*, a pair at the road-side. Mai "Khola," East Nepal, 6,000' approx. elevation, ♂ ♀ ♀ 24-4-12. Observed in "maling" bamboo thickets at about 7,000', 28-3-12*, when it was certainly ascending with the warm weather. Obtained at Kalo Pokhari at 10,000', ♂ 1-5-12, ♀ 7-5-12. Sookia Pokhari, 7,200', ♂ 18-4-17*, an extremely late date to be at this elevation, notwithstanding they arrive comparatively late at their breeding haunts. Blanford obtained it on the Cho La Range at 11,000' in August.

Four specimens examined: ♂ ♀ Wing 77-78, av. 77.5.

297. The Himalayas Crossbill. *Loxis curvirostra himalayana* Blyth.

A rare vagrant on the *Outer Ranges during the winter*. Sandakphu, below the summit on the Nepal side of the mountain at 11,500', ♂ 7-3-12, secured whilst hanging on to the face of a boulder, ♀ lost owing to its falling into an inaccessible place. This single pair was located amongst huge boulders on the southern precipitous face of the mountain, and this was the only occasion I met with the Crossbill. All efforts to find it in the pine forests being fruitless. The male had the testes developed and they were evidently an early breeding pair. The stomach contained only minute pieces of white quartz or felspar which had been nibbled from off the rocks, when at this occupation I had shot them. This male is more orange than rose coloured on the parts which are at times rosy-red; the female was observed to be in a pale phase of coloration. Turzum, 5,200', ♂ ♂, 28-12-16, ♂ ♀ ♀, 12-2-17, for which specimens I am indebted to Mr. O. Lindgren. One male only, in the deep phase, rosy-red; one ♀ sexed without error, similarly coloured to the male, only these parts are orange-yellow; another female evidently typical, the only bright portion is the greenish-yellow of the upper tail-coverts. Any abrasion that takes place in these males during the breeding period decreases the brilliancy of the plumage, as these specimens, February—March, had completed their moult. Wing, 82-85, av., 83.3. Well represented in the B.M. Coll. by Mandelli's skins from the interior of Sikkim.

Soft parts: Iris hazel-brown; bill, upper mandible dark horny, lower mandible tinged greenish, under portion dark horny; tarsus brownish-horny; claws darker.

298. The Scarlet Finch. *Hæmatospiza sipahi* (Hodgs.).

This brilliant Finch is a *widely spread* vagrant and occurs at various elevations in forest during "the cold weather." The following records and observations give some indication of its wanderings:—Namsoo, 2,200', 7-2-14,* a small party observed on the east side of the Balasan River. Gangtok-Dikchu at 4,500', 22-2-20,* a large party in the valley of the Dikchu. Gopaldhara, 4,550', ♀ 31-3-11, ovaries normal; ♀ 26-3-11; 4,700', ♂ ♂ 8-1-12; ♂ ♀ 11-1-12; 5,800', 10-2-19,* three or four pairs observed, 6,000', ♂ ♀ 10-3-18; ♂ 17-2-18, in small parties of six or thereabouts. ♂ ♂, ♀ ♀ 10-2-18. Ridge above Temi at 6,800', 15-3-20,* a large party on the slopes of the ridge. Obtained at elevations of from 1,900'-5,800' in the Tista Valley below and above Mangpu. 1,900', ♂ 23-2-19, 4,100', ♂ juv., ♀ juv., 20-5-20; 5,000', ♀ ♀ 16-12-12; 5,800', ♀ ♀ 30-11-20 (G. E. Shaw).

Eight specimens examined: four ♂ ♂ wing 94-102, av. 99; four ♀ ♀ wing 100 and this measurement in this sex is constant in these specimens. The difference in length of the wing in both extreme measurements of the males representing equally adult birds is just as marked in the total length measurement taken in the flesh 6.2"-7.5". In one male 8-1-12, the first three primaries are in process of being replaced, and in one female 11-1-12, the 1st primary is not fully grown. The Iris in the adult male is stone-brown.

299. The Red-headed Rose-Finch. *Propyrrhula subhimachalus* (Hodgs.).

Oates quotes Jerdon, who states he found this Finch near Darjiling. This record is vague if we understand the term to include the district. Observed on the Singile La Ridge on two occasions only. Tonglo, 10,000', ♀ 23-1-12, wing, 93. 1st primary, growth not completed. Kalo Pokhari, 10,000', ♀ 28-4-12, wing, 93. Both birds were secured in the foliage of some dwarf trees at no great height from the ground, difficult to locate owing to their greenish plumage and silence; no males seen.

Soft parts: Iris hazel-brown; bill, upper mandible blackish-horny, lower mandible pale horny, dark at the tip; tarsus brownish-horny.

300. The Red-breasted Rose-Finch. *Pyrrhospiza punicea punicea* Hodgs.

Obtained by the Mount Everest Expedition at 17,500', "never below 16,000."

Recorded for Sikkim at elevations of from 10,000'-17,000'.

Evidently it only occurs at *extreme heights*. Blanford records it from the Cho La Range at 14,000', 27th August 1870.

301. The White-browed Rose-Finch. *Carpodacus thura thura*. (Bp. & Schleg.).

This Rose-Finch occurs more plentifully in the Interior of Sikkim than it does on the Outer Ranges at similar altitudes during the winter. Numerous above Karponang around 10,000'-11,000' from the 17th to the 23rd of March 1917. Lachung, 8,800', ♀ 28-2-20; 9000'-9500', ♂ ♂ 4-5-3-20. Sandakphu, 10,500', ♂ 15-2-12, one of a pair; this bird is in the female phase of plumage, obtained whilst feeding on the barren mountain-track in a dense overhanging mist and on a piercing, cold evening. There are few more delightful sights than to watch a party of these Rose-Finches flitting about the Rhododendron trees when the vegetation and ground is coated with a mantle of snow. Recorded Cho La Range 12,000' August. (Blanford). There is little doubt that some males breed in the female phase of plumage. Twelve specimens examined: ♂ adult, Wing 83-85 av. 84; ♂ in female phase, wing 81-82, av. 81.5. ♀ wing 80-83; av. 81.3.

302. The Beautiful Rose-Finch. *Carpodacus pulcherrimus pulcherrimus* (Moore).

Evidently confined to the higher reaches of the *valleys in the interior during the winter*, probably ascending to extreme limits to breed. Lachung, 8,800', ♀ 22-2-20, wing 75. Secured out of the naked branches of a stunted tree. I suspected others to be in the vicinity which were overlooked.

Obtained by the Mount Everest Expedition at 14,800'.

303. The Pink-browed Rose-Finch. *Carpodacus rhodochroa* (Vig.)

The distribution of this Rose-Finch as given by Oates is from Dharmasala to Nepal. *The following records extend its range to the frontiers of Western Sikkim.* Tonglo, 10,000', Sikkim side of the Frontier, ♂ 22-1-12; ♂ 8-2-12. These males were secured out of small parties of mixed sexes. ♂ wing, av., 71. Neither of the next two Rose-Finches have so far been obtained within the actual borders of Sikkim, but as it is interesting to know the nearest locality to the frontier where they have been obtained; I quote from Mr. N. B. Kinnear's article in the Ibis which has supplied me with the Mount Everest records. *Carpodacus severtzovi* Sharpe., breeds commonly in southern Tibet and Colonels Bailey and Steen found nests at 14,000' near Gyantse. *Carpodacus rubecilloides* Przew. Specimens of this Rose-Finch were obtained by Colonel Walton up to 15,200' in southern Tibet during December, April and May, and he states that its distribution coincides with that of *C. severtzovi* which is Kinnear's reason for keeping them separate as good species.

304. The Spotted-winged Rose-Finch. *Carpodacus rhodopeplus rhodopeplus* (Vig.).

Recorded for the Himalayas, Garwhal to Sikkim. The National Collection is only represented by specimens from Nepal.

305. Edwards's Eastern Rose-Finch. *Carpodacus edwardsii saturatus*. (Blanford.)

Occurs at elevations of from about 8,000' to 10,000' on the Outer Ranges and also in the Interior of Sikkim. Kalo Pokhari, 10,000', ♀ 23-4-12; ♀ 15-5-12; ♂ 19-5-12. Mai "Khola", East Nepal, 8,000', ♀ 28-3-12. Found frequenting the dense "maling" bamboo growth on the precipitous mountain-slopes, when disturbed, occasionally rising into the bare branches of any near-at-hand tree. Lachung, 9,000', ♂ 1-4-3-20, several observed on the ground hereabouts. Karponang, 9,600', ♀ 18-3-17, procured on snow-covered ground in a thicket of heavy "maling" bamboo. Five specimens examined: ♂ Wing 81-85; av. 83-7. ♀ Wing 80-82; av. 81.

306. Hodgson's Rose-Finch. *Carpodacus erythrina roseata* (Hodgson.).

Obtained by Colonel Walton at 15,000', October, in Tibet.

It occurs on the *upward migration at moderate elevations*. Observed and obtained on the following occasions at that period, with the exception of one cold-weather record. Rungbong Valley, Gopaldhara, 4,720', ♂ ♀ 21-3-16, an adult male in deep phase of coloration seen at the same time. Thurbo, 4,250'-4,300', ♀, 23-3-11; ♂ 25-3-11, one of a party of a dozen or thereabouts frequenting some peach trees in cleared ground. Gopaldhara, 4,720', 5-4-14*, About sixty to eighty birds, adult rose coloured males much in the minority. 11-4-15,* a small party containing eight to ten birds, of which two were richly coloured males, females and immature males predominating. 4,800', ♀ 3-11-20, "in fat condition", obtained out of a small party of six birds, all females or juvenile males. When the latter are in this phase of plumage it is impossible to discriminate between the sexes. These birds were feeding on the millet seed which

is grown by the paharias for brewing into "murwa" liquor. Cedars, Balasan Valley at 3,200', ♂ 5-4-17, in female phase of coloration, frequenting the gaudy flowers of some "falada" trees. Obtained at 3,000', ♂ 6-5-21, and at 3,800': ♂ 21-4-20, around Mangpu (G. E. Shaw). Ten specimens examined. ♂ Wing 82-87, av. 84.1. ♀ Wing 78-82; av. 79.7. Dr. Hartert's measurements ♂ ♀ wing 85-90.

307. The Dark Rose-Finch. *Procarduelis nipalensis* (Hodgs.)

Blanford obtained this Rose-Finch on the Cho La Range at 13,000-14,000' (27th August 1870). During the *winter* this Rose-Finch comes down to an elevation not much below 7,000'. Once actually obtained at 4,500' on the Pashok Spur on the Outer Ranges; whereas in the Interior it occurs at an elevation of under 6,000'. Ghoom to Sookia Pokhari, 7,200', ♂ 19-1-12, secured out of a party of which there were several such, seen feeding on the road, and below Sookia Pokhari the previous day at 6,800'. Mai "Khola" East Nepal, 8,000', ♂ 16-4-12; 9,000', ♂ 25-5-12. Kalo Pokhari, 9,000', ♀ 30-4-12; 10,000', ♂ 18-4-12. Senchal, 8,000', a large party numbering about fifty birds foraging on the road after a fall of snow on the 6-2-17. Below Lopchu at about 4,500', ♂ 12-3-17, a remarkable low limit where *P. rubescens* was also obtained. Gangtok, 5,800', 21-22-2-20, observed on the more secluded station-paths. Sandakphu and Phalut, 11,811', ♂ 11-8-05, (C. M. Inglis). Four specimens examined: ♂ Wing 88-91; av. 89.7. ♀ Wing 81. Dr. Hartert's measurements: ♂ ♀ wing 90-93.

308. Blanford's Rose-Finch. *Procarduelis rubescens* Blanford.

Recorded for Sikkim and the Eastern portion of Nepal, "probably at high elevations". I have located it on several occasions during the winter below 6,000', and on one occasion actually at 4,500', a remarkable low altitude. Observed in Gangtok in small parties at 5,800', 15-3-17.* Rungmook. Observed in parties on the ground at 5,600', 31-3-17, specimens secured above this place at an elevation of 5,900' on the 5-4-17, in a small cryptomeria plantation; when they showed every sign of being in readiness to migrate to higher limits, as they were very restless and in the upper outskirts of the wood in a party of twenty to thirty birds. Fortunately, I anticipated this event, as I was by no means sure of meeting with them again, some time having elapsed, and an abortive attempt by my shikari had not helped matters. Obtained below Lopchu on the Pashok Spur at 4,500', ♂ 12-3-17. Four specimens examined: ♂ Wing 80-83, av. 81.7. ♀ Wing 80.

309. The Red-browed Finch.. *Callacanthus burtoni* (Gould).

Obtained on the Singile La Ridge in winter, but found below 9,900'. Tonglo at 10,000', on the Sikkim side of the Frontier, ♂ ♂ ♀ 23-1-12; ♂ ♀ ♀ 12-2-12. Secured in the foliage of the trees which were in leaf at the time in a more sheltered quarter. No others seen on the second occasion with the exception of the three specimens obtained. There was no evidence to prove that these birds belonged to a combined party, but rather that they were scattered individuals. Dr. Hartert has mentioned this extension of its previously known range in his exhaustive work on the Palaearctic birds which Oates only recorded as far east as Kumaun.

Soft parts: Iris hazel; bill in male horny, base of the upper mandible and the whole of the lower mandible dull yellow, excepting the tip which is dark; bill in female similar, but without the yellow tinge.

310. The Tibetan Twite. *Acanthis flavirostris rufostriata* (Walton).

Possibly may occur on the high eastern borders, as it is recorded from the Chumbi Valley at Gyantse in Tibet; where it has been obtained up to 15,200'. (Walton).

311. The Himalayan Greenfinch. *Hypacanthis spinoides* (Vig.).

Obtained by the Mount Everest Expedition at 12,500'.

This Finch commonly occurs around Gopaldhara at 4,720', and is only absent for a few months, noticeable in August during the breeding season. In "the cold weather", small parties descend to the bottom of the valley at 3,440'. *Arbor vitæ* (Thuya) trees when seeding being the attraction; these have been planted at more or less regular intervals to demarcate the main paths through the estate. 29-3-18, observed in scrub-growth gradually receding from the vicinity of the bungalow. Mirik, 5,400', 29-3-20, exceptionally large flights. Gopaldhara Bw., parties about in June 1914. 7-4-16, still in parties. 22-5-23*, in evidence at evening by their call. 15-6-15, much in evidence with their twitterings. 7-7-21, this morning a few birds observed to be feeding on the *Calliopsis* in the compound, the harmonizing tone of the yellow and green tints of the birds with the rich yellow flowers producing a pleasing effect. 12-7 23*, a pair at all events amongst the *Calliopsis*. They are very partial to the seeds of the Sunflower, which has spread to the surrounding country-side, and wherever various *Coniferae* have been planted for utility or picturesqueness; it is obvious this bird has *extended its range to much lower limits* since these favourable conditions have developed. Obtained above Mangpu at elevations of 4,700'-6,500'. (G. E. Shaw).

Gopaldhara to Seyok, a series of ten specimens obtained at elevations of from 4,700'-5,000' from the 19-12-11—7-1-12. Males in adult stage of plumage uncommon; immature birds of both sexes, impossible to separate by colour. Some time evidently has to elapse before the rich yellow tints of the mature bird are assumed and as Oates remarks summer birds sometimes fail to show the yellow tint of the forehead; it is fair to presume more than one year is required before it reaches maturity in this respect. One ♂ obtained 25-7-20 at 4,720', when a few more went to come into the compound to their favourite flowers has the deep, rich yellow tints well marked. Blanford records it as common in small flocks to about 9,000' locally in the Lachung Valley and early in September in flocks as low as 7,000' at Kedom. Not noticed on the Cho La Range or at high elevations in Northern Sikkim.

312. The Sikkim Siskin. *Chrysomitris tibetana tibetana* Hume.

Recorded for the interior of Sikkim at *high elevations* bordering on Tibet.

313. The Indian House-Sparrow. *Passer domesticus indicus* Jard. and Selby.

Occurs up to an elevation of 4,500' at all events in the Rungbong Valley, though it is capricious in its distribution and takes second place to its ally in the hills. I have not noticed any mutual understanding between these two Sparrows as sometimes happened in the Plains, when both more or less equally shared what accommodation was available for nesting.

314. The Indian Tree-Sparrow. *Passer montanus saturatus* Stejn.

Resident and numerous in the station of Darjeeling and similarly firmly established in the interior of Sikkim at Gangtok. The elevation of the former town at Observatory Hill is 7,163', and as it is found at Jalapahar around 7,000'; this elevation is a slight increase on its recorded distribution upto 7,000'. In summer, however, I have never observed any tendency to increase its limits as this Sparrow is sedentary and occasionally gets an acquaintance with light falls of snow hereabouts, in exceptional winters. Gopaldhara 4,720'.

This bungalow evidently is not suited on to its requirements as at Turbo, 4,500' where it breeds in fair numbers. A single bird was intent on finding quarters at Gopaldhara on the 24-4-18, but contented itself with a cursory look around and then left. A form of the Tree-Sparrow was obtained at 14,000' during the Mount Everest Expedition.

315. The Cinnamon Tree-Sparrow. *Passer rutilans cinnameus* (Gould).

This Sparrow appears to pass over the hills at moderate elevations when on migration. Recorded up to 7,000' for the Himalayas. I have strangely enough failed to meet with it in Sikkim. Bailey found this Sparrow breeding at 13,000' in Tibet. Well represented in the B. M. Coll. by Sikkim, Tibet and Bhotan Dooars specimens. (Mandelli).

I have since observed a small party above Sungma at 5,000', 1-9-23* which I have little doubt was composed of this sparrow.

316. Blanford's Mountain-Finch. *Chionospina blanfordi* (Hume).

Included on the record of four specimens in the Hume collection which were procured near Darjeeling! Obtained by the Mount Everest Expedition at 15,200'.

317. The Red-necked Mountain-Finch. *Chionospina ruficollis* (Blanf).

Recorded by Blanford for Sikkim at 15,000'-16,000' on the Kangra Lama Pass and at Phalung. (September).

318. Adams's Mountain-Finch. *Chionospina nivalis adamsi* (Adams).

Obtained by the Mount Everest Expedition at elevation off from 14,000'-16,000'.

Recorded according to Hume as far east as Sikkim and appears to be found at 11,000'-14,000' in summer.

Sandakphu to Phalut at an elevation of over 11,000' one or two specimens of a Snow-Finch or typical *Montifringilla* sp? very "white" birds were seen on the mountain-track, 19-2-12,* but unfortunately, none were secured. I had no time to waste on the road as this was my fourth day without food, with every chance of darkness coming on before I reached my destination, and the track was in places deep in snow. "This remedy is not to be recommended in its entirety as a certain cure for malaria."

319. Mandelli's Mountain-Finch. *Chionospina mandelli* (Hume).

Recorded for the Tibet-Sikkim borders as procured by Mandelli.

320. Hodgson's Mountain-Finch. *Fringillauda nemoricola nemoricola* Hodgs.

During the winter occurs on the Outer Ranges at all elevations from 6,500' and "on one occasion seen 1,300' lower" up to 12,000'. At this period of the year, it appears to be met with less frequently in the interior. Tonglo, Singile La Ridge, 10,000', six ♂♂, one ♀, 22-1-12. Sandakphu, 11,900', ♂ 2-3-12. ♂ ♀ 7-3-12, ♂ 13-3-12. Large parties were observed in January on Tonglo, feeding on the barren mountain-summit, and often seen at rest on the naked branches of the trees on the north side of the frontier. The sexes apparently keep in separate parties this month as the first batch of six specimens were

secured out of one party and were all males, which might have been a coincidence yet at Sandakphu in March the intermingling of the sexes had undoubtedly begun. Observed at Phalut on the summit at 11,800', 16—19-2-12, in small parties; the mountain was at this time covered in snow with heavy drifts on the ridge.

Seeyok, 5,200', December 1917, a party of approximately two hundred birds observed flying overhead. Semana basti, 7-3-15, in cleared ground on the south side of the village, a party of from thirty to forty birds at 6,500'. Jalapahar, 7,500', ♂ 13-2-20, several about on the rocky ground and using the telegraph wire to settle on.

Senchal 8,500', 7-2-17, a few noted. Karponang, 10,500' ♂ ♀ 22-3-17. Okayti, 5,500', 26-12-12,* a large party, presumably this Finch.

Nine specimens examined. ♂ Wing 97.5-105, av. 100.6. ♀ wing 95-96. av. 95.5. All these are typical, inclusive of one ♂ only, 22-1-12, which has the streaks faintly indicated in the "rufous" of the crown, this coloration evidently is rarely present; one exception is a ♂ secured along with others out of the same party of males with the axillaries ashy-white and tips to the median and greater wing-coverts tinged with rufous, is without the yellow at the base of the bill and shows no indication of the ashy-white supercilium. This specimen agrees in all respects with *F. n. altaica* (Eversm.). If the locality and circumstances were not known it would be impossible to identify correctly. Obtained by the Mount Everest Expedition up to 17,000'.

Soft parts: Iris sienna-brown; bill light horny-brown shading darker towards the tip, base of upper and lower mandible dull yellow; tarsus horny-brown; soles dull yellow.

321. Brandt's Mountain-Finch. *Fringillauda brandti hæmatopyga* (Bonap).

Recorded for Sikkim at *high elevations* of from 12,000'-19,000'.

Blanford met with this bird on the Kangra Lama Pass at elevations exceeding 15,000' in flocks of fifteen to twenty (September). Obtained by the Mount Everest Expedition up to 17,500'.

322. The Indian Grey-headed Bunting. *Emberiza fucata arcuata* Sharpe.

Recorded as resident in the whole of the Himalayas; "breeds from 6,000'-8,000'". This statement is certainly misleading if Sikkim is included in this category. Buntings are conspicuous by their absence. Not represented in the B.M. Coll. from Sikkim. Mandelli obtained one from the Bhotan Dooars, February 1874.

323. The Little Bunting. *Emberiza pusilla* Pall.

The Little Bunting occurs irregularly in limited numbers at *varying altitudes* for brief periods on its *downward and upward migration* to and from the Plains.

Gopaldhara, 3,800', 9-4-19, an odd ♂ ♀ pair or so on the flat in "the tea."

Nigali near Mirik, 5,500', ♀ 23-3-11. Kalo Pokhari, 10,000', ♀ 23-4-12. A small party observed in the Botanical Gardens in Darjeeling on its ascent, date overlooked. Obtained at Gopaldhara, 4,500', ♀ 23-12-11. Seen at Turzum, 4,500', 18-1-12.* Obtained at Mangpu, ♂ ♀ 8-12-12 (G.E. Shaw). Okayti, 5,500', 26-12-21,* a small party below the ridge.

Gopaldhara, 4,600', 10-1-19, ♀ secured out of a party of a few birds.

324. The Yellow-breasted Bunting. *Emberiza aureola* Pall.

Represented in the B.M. Coll. by one specimen, October 1872, (Mandelli) and a few from Nepal (Scully and Hodgson).

Recorded as a common winter visitor to the Himalayas, Nepal to Assam, etc. This Bunting may pass high over on passage, yet I suspect the birds found during the winter in the Plains have arrived by a more easterly ? route. This remark also refers to the Moupin Black-faced Bunting which is similarly recorded in its distribution.

325. The Moupin Black-faced Bunting. *Emberiza spodocephala melanops* Blyth.

This bird was the common Bunting during "the cold weather" in the Plains of Upper Assam. I have totally failed to note one single occurrence in these hills. Evidently not represented in the B.M. Coll. from Sikkim, but there are 3 skins marked Nepal ! ! (Hodgson).

326. The Chestnut Bunting. *Emberiza rutila* Pall.

Recorded for Sikkim ; on whose specimens I am not cognizant, but probably Mandelli's. Evidence as to the supposed status of these species of *Emberiza* is most desirable. Represented from Sikkim, 3 specimens, March-April, 1871. One specimen, Bhotan Doars, January 1876 (Mandelli), B.M. Collection.

327. The Crested Bunting. *Melophus melanicterus* (Gmel.).

Recorded in its distribution as "everywhere apparently a resident species." This is not correct for the *Outer Ranges* in Sikkim where this Bunting is *absent in the cold-weather months*, but occurs as a *breeding species up to 6,000'* and somewhat higher. The dates of its arrival have been noted at these elevations. Nurbong, 2,000' ♂ 22-2-14* and daily afterwards. Namsoo to Kurseong, 2,500', 4-4-11,* a pair observed near Ambootia. Gopaldhara, 4,720' and below, 4-4-18*; 11-4-15,* an odd pair or two about "the tea". Noted as plentiful at Cedars, 3,200'. Thurbo, 4,500', and Gopaldhara 4,700', early April 1917.

Obtained around Mangpu at 3,500', ♂ 1-6-18. 3,600', ♂ 3-3-19; 3,860', ♀ 31-5-20; ♀ 22-5-15, parent bird with three eggs. (G.E. Shaw). I have observed it above Ambootia at 4,500, 29-8-21.* Gammie remarks on it breeding in May from 2,000'-4,000' in the Tista Valley. Inglis obtained it breeding at Dentam, ♂ 7-8-05.

328. The Kashmir Martin. *Delichon urbica cashmeriensis* (Gould).

Recorded for the Himalayas up to 12,000' or 13,000'. Included on the strength of "three adult specimens obtained in April in Sikkim" and evidently refers to birds obtained about the upper limits of the forest on the Cho La Range by Blanford.

329. Hodgson's Martin. *Delichon nipalensis* Moore.

Recorded. "Appears to ascend the Himalayas up to at least 8,000'."

Oates states he has seen specimens procured in Sikkim in every month from June to January.

Mai "Khola", East Nepal, 28-4-12, a series of four ♂ ♂ and eight ♀ ♀ collected around 8,000'.

Singhik in the interior of Sikkim at 4,600', numbers observed on the 12-13-3-20. Dentam, 4,500', ♂ 6-8-05. (C.M. Inglis).

Nine specimens examined : ♂ Wing 91-97, av. 94-2 ; ♀ wing 90-97; av. 93-3.

330. The Indian Sand-Martin. *Riparia brevicaudata* McClell.

In all probability occurs in the Foot-hills. Specimens obtained out of a large party, hawking over the river-bed at evening below the Gorge of the Raidak River in the Eastern Doars, 26-1-22 ; ♂ Wing, 93 ; ♀ Wing, 86.

331. The Crag-Martin. *Ptyonoprogne rupestris* (Scop).

Recorded for the whole Himalayas as far east as Bhotan, etc. Not represented from Sikkim in the National Collection. Nearest localities: Tibet, Khambajong, 4-10-03, Gyantse, 9-7-04. (Walton).

332. The Eastern Swallow. *Hirundo rustica gutturalis*. Scop.

The typical form is recorded for the Himalayas; "breeds 4,000'-7,000." Sikkim birds are *gutturalis*. Numbers breed under the eaves of the coolie houses at Gopaldhara, and it is widely distributed on the Outer Ranges at moderate elevations. Observed up to 7,600', but absent during the winter months, notwithstanding scattered birds certainly occupy the warmer portions of the valleys at this time; they are liable to fluctuation through various changes in the weather, and only ardent prolonged observations could check these movements. Apparently they arrive around Gopaldhara early in February. First appearances noted at 4,720', 5-2-16* and 16-2-15*. 3,440', 4-7-21,* Numbers of juvenile Swallows on the wing, evidently having recently left the nest, and resting in batches, 4,650', 28-5-23*, young birds on the wing, being fed by the parents.

333. Hodgson's Striated Swallow. *Hirundo daurica nipalensis* Hodgs.

This confiding Swallow must be almost entirely dependent on man's domicile to give it the desired nook where it can build its retort-shaped, substantial mud structure. There can be few houses without at least a pair of these charming birds unless conditions are not in their favour. Happily, it is rarely not assured the solicited protection when, they amply repay for the little untidiness which takes place, before they can be certain their abode is secure. One nest has to my knowledge stood the test for ten years though the rightful occupants have long since had to make way for a less industrious, but stronger tenants in a pair of Swifts (*Micropus affinis*). When such an event takes place, they make every endeavour to seek a more secluded site where they will be free from further molestation, even gaining access to the rooms, with their gapes full of mud, should the windows be thrown open for any length of time. They willingly accept the inconvenience of a closed-in verandah, taking their chance when the door is opened to allow of their ingress and egress. One pair of birds which had suffered ejection, eventually selected a corner of the masonry of one of the outer windows where they have endured no visible inconvenience with the exception of the drawing of a blind, and this operation is taken as a token of friendliness; as it is certain to elicit a quick response in, a cheery "tweet" from the little inmates as a notification that all is well. What becomes of the numerous families which have been safely brought up remains a problem; I suspect that more often than not, fruitless attempts to bind up their dwelling under a smooth corrugated-iron roof which is liable to expansion and contraction under a varying temperature, is the work of younger birds. These almost pathetic attempts at the impossible does not discourage, judging by the renewed efforts, when the heat of the sun brings it tumbling down to be finally abandoned.

It breeds commonly in all stone habitations and even wooden buildings, and may utilise rocks and cliffs for this purpose, which I have so far not been able to substantiate, at all elevations from 2,822', at all events, Tindharia station on the D.H.Ry. up to the town of Darjeeling. At Gopaldhara Bw, 4,720', they are absent for a few months only, and not always that length of time, which depends on the prevailing conditions; as when a tolerable mild spell of weather intervenes they readily avail themselves of their own snug quarters, which are

then occupied almost year in and year out. Observed 9-1-17.* Most birds, however, come up to breed in early February; noted on the 16-2-15*, a few days earlier, reported to have arrived at Nagri by Mr. F. S. Boileau in the following year, when I noted their arrival at Gopaldhara on the 12-2-16.* Observed to have been absent for a brief period possibly occupied in getting the young brood safely launched on the wing, 14-9-17.*

334. The Indian White Wagtail. *Motacilla alba dukhensis* Sykes.

Merely occurs as a *passing migrant at moderate elevations* on its descent to the plains, when it has been noted on the following occasions; all of which records apparently refer to this Wagtail. Gopaldhara, 3,500', 19-9-21,* a single bird in company with a single *M. cinerea melanope*. 4,720', 27-9-19,* single bird, stayed one day only. 3,500', 28-9-21,* one adult and two immature birds in company with a Hoopoe, 4,720', 4-10-20,* single bird only. 3,500', 21-7-16.* Had I not made absolutely certain of my identification, I would not have inserted this remarkable occurrence, which remains a mystery, as to why a Wagtail other than *maderaspatensis* should appear in July; this bird had a "grey" back, as regards the colour of the ear-coverts, and whether an eye streak was present or not, I cannot speak with certainty; so far I have not observed either *M. alba personata* or *M. alba ocularis* on migration, and it must be left at that. The first and the last species of the next-mentioned were obtained by the Mount Everest Expedition upto 17,500' and from 14,000'-15,000' respectively.

Motacilla alba leucopsis Gould.

Motacilla alba ocularis Swinh.

Motacilla alba personata Gould.

Motacilla alba alboideis Hodgs.

Any of these Wagtails are likely to be discovered up at low elevations, at all events during "the cold weather." Blanford refers all his specimens of the Pied Wagtail obtained in the Lachung Valley above 12,000' to the last species. It was not met with before the 11th of September.

335. The Large Pied Wagtail. *Motacilla maderaspatensis* Gmel.

Recorded "Breeds in the Plains, also in the Himalayas up to 3,000'." Partial to the stony banks of the large rivers when it is found during the winter at the foot of the hills. Obtained on the Raidak River above Bhotan Ghat in the Eastern Dooars, ♀ 23-1-22, ovaries fairly active; one of a small party of three or more. Also obtained on several occasions in the Tista River at low elevations by Mr. G. E. Shaw.

336. The Grey Wagtail. *Motacilla cinerea melanope* Pall.

Recorded for the Himalayas, "summer above 6,000', where a few birds may also be found in winter." A cold-weather migrant arriving in the Rungbong Valley during September, leaving for higher elevations towards the end of April. Sparingly distributed adjacent to running water throughout "the cold weather"; as it is partial to the stony beds of all hill streams, there is every likelihood of its occurring in the upper reaches of the valleys as stated at 6,000'.

Gopaldhara, earliest arrivals.—4,500', 10-9-17,* 4,720', 21-9-20*, 3,550', 22-9-19*, 19-9-21*, all of which records refer to single birds. Latest departures. 23-4-18,* a pair at 4,700'; a single at 4,720', 22-4-23; 21-4-18, a single at 3,400', 31-3-20*, a single at 4,750', in company with Pipits (*Anthus hodgsoni*). All the Wagtails with this exception must be fleeting passage migrants, breaking their journey for brief intervals at moderate elevations on their descent to the plains.